

IN THE CLAIMS:

Please cancel Claim 7 without prejudice to or disclaimer of the subject matter presented therein. Please amend Claim 1 and add new Claims 15 and 16, as shown below.

1. (Currently Amended) A probe medium, comprising:
  - a probe capable of specifically binding to a target substance;
  - a medium containing an organic solvent comprising at least a silane coupling agent; and
    - a substance for solubilizing the probe in the organic solvent,  
wherein the probe is dissolved in the organic solvent.
2. (Original) A probe medium according to claim 1, wherein the probe is a nucleic acid probe.
3. (Original) A probe medium according to claim 1, wherein the organic solvent is a solvent in which the probe is insoluble.
4. (Original) A probe medium according to claim 1, wherein the substance for solubilizing the probe in the organic solvent is an amphipathic substance.
5. (Currently Amended) A probe medium according to claim 1, wherein the substance for solubilizing the probe in the organic solvent is a substance selected from

the group consisting of n-hexadecyl trimethyl ammonium bromide, n-hexadecyl trimethyl ammonium chloride, and cetylpyridinium chloride, or a mixture containing at least comprising a substance selected from the group.

6. (Original) A probe medium according to claim 1, further comprising a substance for immobilizing the probe on a substrate.

7. (Cancelled)

8. (Original) A probe medium according to claim 1, further comprising a solvent in which the probe is soluble.

9. (Currently Amended) A probe medium according to claim 1, wherein an amount of the substance for solubilizing the probe in the organic solvent is adjusted within a range in which white turbidity of the probe medium can be observed.

10. (Withdrawn) A method of producing a probe medium that contains a probe capable of specifically binding to a target substance, comprising the steps of:

dissolving the probe in a solvent in which the probe is soluble;

separating the probe from the solvent by acting on the solvent a substance for solubilizing the probe in an organic solvent; and

dissolving the probe in the organic solvent by adding the organic solvent to the probe.

11. (Withdrawn) A method of producing the probe medium according to claim 10, wherein an amount of the substance for solubilizing the probe in the organic solvent is acted on a basis of a product between a length of the probe and a mole number of the probe.

12. (Withdrawn) A method of producing the probe medium according to claim 10, wherein an amount of the substance for solubilizing the probe in the organic solvent is acted on a basis of an amount of the probe separated from the solvent.

13. (Withdrawn) A method of immobilizing a probe on a substrate, comprising providing the probe medium of claim 1 on a substrate by spotting.

14. (Withdrawn) A detection element produced by the probe-immobilizing method of claim 13.

15. (New) The probe medium according to claim 1, wherein the substance for solubilizing the probe is a cationic surfactant.

16. (New) The probe medium according to claim 1, wherein the probe has a reaction site for binding to a substrate.